GenCore version 5.1.4_p5_4578

OM protein - protein search, using sw model

Run on: April 8, 2003, 14:25:27 ; Search time 75 Seconds
(without alignments)
968.288 Million cell updates/sec

Title: US-09-001-737-8
Perfect score: 545
Sequence: 1 MAKEIKFSADARAAMVRGVD.....TPAPAMPAGMDPGMMGGMGG 545

Scoring table: OLIGO
Gapop 60.0 , Gapext 60.0

Searched: 908470 seqs, 133250620 residues

Word size : 8

Total number of hits satisfying chosen parameters: 350

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Listing first 1000 summaries

Database : A_Geneseq_101002:*
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	545	100.0	545	20	AAY23904	Streptococcus pyog
2	538	98.7	545	23	ABP28529	Streptococcus poly
3	78	14.3	540	23	ABP28528	Streptococcus poly
4	70	12.8	540	22	AAM01101	CFE 104 protein se
5	70	12.8	541	20	AAY23902	Streptococcus pneu
6	70	12.8	641	22	AAB31619	Amino acid sequenc
7	56	10.3	542	23	ABB53701	Lactococcus lactis
8	31	5.7	542	23	ABB49241	Listeria monocytog
9	26	4.8	539	20	AAY23916	Amino acid sequenc
10	24	4.4	224	20	AAY37100	Amino acid sequenc
11	24	4.4	419	18	AAW10977	Dihydrofolate redu
12	24	4.4	419	18	AAW11865	DHFR/Polypeptide B
13	24	4.4	544	12	AAR13337	HypB protein. Chl
14	24	4.4	544	16	AAR67383	C. psittaci HypB g
15	24	4.4	544	18	AAW10975	Chlamydia pneumoni
16	24	4.4	544	18	AAW11863	Polypeptide B. Ch
17	24	4.4	544	20	AAY23905	Amino acid sequenc
18	24	4.4	544	20	AAY34735	Amino acid sequenc
19	24	4.4	544	22	AAE11757	Chlamydophila pneu
20	24	4.4	544	23	ABB94272	Chlamydia pneumoni
21	24	4.4	545	21	AAB19080	Amino acid sequenc
22	24	4.4	704	18	AAW10976	Dihydrofolate redu
23	24	4.4	704	18	AAW11864	DHFR/Polypeptide B
24	23	4.2	547	22	AAB69060	Pseudomonas aerugi
25	23	4.2	574	22	AAB69061	pTrcHisB expressio
26	23	4.2	612	22	AAU63908	Propionibacterium
27	21	3.9	301	22	AAG83041	S. epidermidis ope
28	21	3.9	539	22	AAG81848	S. epidermidis ope
29	21	3.9	541	20	AAY23917	Amino acid sequenc
30	21	3.9	545	20	AAY23930	Consensus mino aci
31	20	3.7	309	19	AAW60146	M. vaccae antigen
32	20	3.7	309	20	AAY14893	Amino acid sequenc
33	20	3.7	309	23	ABB73499	M vaccae GroEL hom
34	20	3.7	327	20	AAY14910	Amino acid sequenc
35	20	3.7	327	23	ABB73516	M vaccae GroEL hom
36	20	3.7	523	19	AAW60144	M. vaccae antigen
37	20	3.7	523	20	AAY14891	Amino acid sequenc
38	20	3.7	523	23	ABB73497	M vaccae GroEL hom
39	20	3.7	539	20	AAY23919	Amino acid sequenc
40	20	3.7	540	9	AAP81351	Sequence of Mycoba
41	20	3.7	540	16	AAR81610	Mycobacterium tube
42	20	3.7	540	18	AAW32100	Mycobacteria sp. h
43	20	3.7	540	19	AAW44702	Mycobacterium tube
44	20	3.7	540	20	AAY23911	Amino acid sequenc
45	20	3.7	540	21	AAY93332	Amino acid sequenc
46	20	3.7	540	22	AAE11755	Mycobacterium tube
47	20	3.7	540	22	AAG81118	Mycobacterium tube
48	20	3.7	540	22	AAB31606	Amino acid sequenc
49	20	3.7	540	23	AAU76510	M. leprae 65kDA st
50	20	3.7	540	23	AAU76511	M. tuberculosis 65
51	20	3.7	540	23	AAU76193	Mycobacterium lepr
52	20	3.7	540	23	AAU76194	Mycobacterium tube
53	20	3.7	540	23	AAM50750	Mycobacterium tube
54	20	3.7	541	16	AAR67384	M. leprae GroEL1 g
55	20	3.7	541	20	AAY14909	Amino acid sequenc
56	20	3.7	541	20	AAY23910	Amino acid sequenc
57	20	3.7	541	20	AAY23913	Amino acid sequenc
58	20	3.7	541	23	ABB73515	M vaccae GroEL hom
59	20	3.7	544	18	AAW32099	Mycobacteria sp. h
60	20	3.7	560	9	AAP80215	Sequence of Mycoba
61	20	3.7	572	11	AAR04716	Amino acid sequenc
62	20	3.7	573	11	AAR04715	Amino acid sequenc
63	20	3.7	573	16	AAR64765	M. leprae 65 kDa p
64	20	3.7	573	16	AAR64766	M. tuberculosis 65
65	20	3.7	588	9	AAP80364	M. leprae 65kD ant
66	20	3.7	638	21	AAB03790	Heat shock protein
67	20	3.7	639	22	AAB31609	Amino acid sequenc
68	20	3.7	648	22	AAB31614	Amino acid sequenc
69	20	3.7	948	22	AAB31611	Amino acid sequenc
70	18	3.3	18	17	AAR94845	Peptide from libra
71	18	3.3	18	18	AAW43523	Mycobacteria sp. h
72	18	3.3	18	22	AAB88287	Hsp-65 peptide epi
73	18	3.3	19	22	AAB88286	Hsp-65 peptide epi
74	18	3.3	21	22	AAB88285	Hsp-65 peptide epi
75	18	3.3	24	22	AAB88284	Hsp-65 peptide epi
76	18	3.3	26	22	AAB88310	Hsp-65 peptide epi
77	18	3.3	540	23	ABP39860	Staphylococcus epi
78	18	3.3	544	23	AAE22070	Francisella tulare
79	17	3.1	17	22	AAB88288	Hsp-65 peptide epi
80	17	3.1	23	22	AAB88295	Hsp-65 peptide epi
81	17	3.1	539	20	AAY23914	Amino acid sequenc
82	17	3.1	539	23	AAU97744	Mycobacterium tube
83	17	3.1	539	23	AAU98656	Mycobacterium tube

84	17	3.1	548	17	AAR94368	Brevibacterium fla
85	17	3.1	548	22	AAG92732	C glutamicum prote
86	17	3.1	549	21	AAY99642	B. pseudomallei Gr
87	16	2.9	16	17	AAR94778	Peptide from libra
88	16	2.9	16	18	AAW43456	Mycobacteria sp. h
89	16	2.9	19	17	AAR94827	Peptide from libra
90	16	2.9	19	18	AAW43505	Mycobacteria sp. h
91	16	2.9	51	22	AAB73742	Chaperone cpn60 pr
92	16	2.9	52	13	AAR20195	Heat shock protein
93	16	2.9	103	21	AAB41321	Human ORFX ORF1085
94	16	2.9	103	23	ABP03730	Human ORFX protein
95	16	2.9	112	19	AAW60130	M. vaccae GroEL-ho
96	16	2.9	112	20	AAY14876	M. vaccae GroEl-ho
97	16	2.9	112	23	ABB73482	M vaccae GroEL hom
98	16	2.9	118	23	ABP06879	Human ORFX protein
99	16	2.9	215	19	AAW60145	M. vaccae antigen
100	16	2.9	215	20	AAY14892	Amino acid sequenc
101	16	2.9	215	23	ABB73498	M vaccae GroEL hom
102	16	2.9	295	22	AAB31615	Amino acid sequenc
103	16	2.9	440	13	AAR22362	GroEL-1 protein pa
104	16	2.9	539	20	AAY23906	Amino acid sequenc
105	16	2.9	540	13	AAR22363	GroEL-1 protein.
106	16	2.9	544	21	AAY75745	Neisseria gonorrhe
107	16	2.9	544	21	AAY75747	Neisseria meningit
108	16	2.9	545	20	AAY23915	Amino acid sequenc
109	16	2.9	548	18	AAW16678	Lawsonia intracell
110	15	2.8	15	17	AAR97488	Mycobacterial heat
111	15	2.8	15	23	AAU99970	Mycobacterial lepa
112	15	2.8	19	17	AAR94871	Peptide from libra
113	15	2.8	19	18	AAW43549	Mycobacteria sp. h
114	15	2.8	20	18	AAW33046	Human heat shock p
115	15	2.8	20	18	AAW12354	Human hsp60 peptid
116	15	2.8	152	23	ABP42395	Human ovarian anti
117	15	2.8	160	19	AAW61375	GroEL apical domai
118	15	2.8	160	19	AAW65071	E. coli GroEL prot
119	15	2.8	186	19	AAW61377	GroEL apical regio
120	15	2.8	186	19	AAW65069	E. coli GroEL N-te
121	15	2.8	544	20	AAY23903	Streptococcus pyog
122	15	2.8	545	20	AAY23901	Streptococcus pneu
123	15	2.8	547	16	AAR67381	L. pneumophila Htp
124	15	2.8	547	16	AAR67385	Mitochondrial prot
125	15	2.8	547	23	AAU76192	Human P1 protein (
126	15	2.8	548	16	AAR67382	E. coli GroEL gene
127	15	2.8	548	19	AAW61378	GroEL N-terminal r
128	15	2.8	548	19	AAW65070	E. coli GroEL prot
129	15	2.8	548	20	AAY23908	Amino acid sequenc
130	15	2.8	548	20	AAW95001	WO9902989 Seq ID 1
131	15	2.8	548	21	AAY99621	Escherichia coli g
132	15	2.8	548	22	AAB50536	Escherichia coli G
133	15	2.8	549	20	AAY23909	Amino acid sequenc
134	15	2.8	559	16	AAR64764	E. coli groEL prot
135	15	2.8	573	11	AAR04713	Amino acid sequenc
136	15	2.8	573	18	AAW14946	Human heat shock p
137	15	2.8	573	18	AAW12345	Human heat-shock p
138	15	2.8	573	18	AAW01657	Human heat shock p
139	15	2.8	573	19	AAW56120	Protein sequence o
140	15	2.8	573	20	AAY23926	Amino acid sequenc
141	15	2.8	573	21	AAY93333	Amino acid sequenc
142	15	2.8	573	21	AAY93334	Amino acid sequenc
143	15	2.8	573	22	ABB58685	Drosophila melanog
144	15	2.8	573	22	ABB63116	Drosophila melanog
145	15	2.8	573	22	ABB67031	Drosophila melanog
146	15	2.8	573	22	ABB50262	Heat shock protein
147	15	2.8	573	22	AAE11756	Human heat shock p
148	15	2.8	573	23	AAU76508	Human P1 protein.
149	15	2.8	573	23	AAU76191	E. Coli GroEL prot
150	15	2.8	575	11	AAR04714	Amino acid sequenc
151	15	2.8	575	16	AAR64763	Human P1 protein.
152	15	2.8	576	20	AAY23925	Amino acid sequenc
153	15	2.8	588	22	ABG12546	Novel human diagno
154	14	2.6	14	22	AAM99099	Vaccine related MH
155	14	2.6	28	22	AAM99100	Vaccine related MH
156	14	2.6	39	22	AAB98032	Corynebacterium gl
157	14	2.6	95	22	AAU45697	Propionibacterium
158	14	2.6	115	23	ABP34469	Human EPH family T
159	14	2.6	260	22	ABG24445	Novel human diagno
160	14	2.6	413	22	AAB78874	C. glutamicum SRT
161	14	2.6	478	21	AAG17147	Arabidopsis thalia
162	14	2.6	493	21	AAG17146	Arabidopsis thalia
163	14	2.6	537	20	AAY23912	Amino acid sequenc
164	14	2.6	538	21	AAG17145	Arabidopsis thalia
165	14	2.6	538	22	AAG90411	C glutamicum prote
166	14	2.6	538	22	AAB78873	C. glutamicum SRT
167	14	2.6	548	21	AAB01278	Candida glabrata H
168	14	2.6	550	21	AAB01275	Aspergillus fumiga
169	14	2.6	552	20	AAY23918	Amino acid sequenc
170	14	2.6	568	21	AAB01277	Candida glabrata H
171	14	2.6	568	21	AAB01279	Histidine tagged C
172	14	2.6	570	21	AAB01276	Histidine tagged A
173	14	2.6	572	11	AAR05042	Heat shock protein
174	14	2.6	572	20	AAY23921	Amino acid sequenc
175	14	2.6	587	21	AAB01274	Aspergillus fumiga
176	14	2.6	647	22	AAB31620	Amino acid sequenc
177	14	2.6	822	22	ABG08883	Novel human diagno
178	14	2.6	822	22	ABG24362	Novel human diagno
179	14	2.6	822	22	ABG29163	Novel human diagno
180	13	2.4	15	17	AAR94846	Peptide from libra
181	13	2.4	15	18	AAW43524	Mycobacteria sp. h
182	13	2.4	182	21	AAB40450	Human ORFX ORF214
183	13	2.4	182	23	ABP06249	Human ORFX protein
184	13	2.4	276	20	AAW89871	Antigen from clust
185	13	2.4	276	20	AAW89994	Expressed antigen
186	13	2.4	544	12	AAR13335	HypB protein. Chl
187	13	2.4	545	16	AAR74339	Helicobacter pylor
188	13	2.4	545	16	AAR67374	Heat shock protein
189	13	2.4	545	17	AAW06732	H. pylori heat sho
190	13	2.4	546	14	AAR41661	H. pylori hsp60.
191	13	2.4	546	14	AAR41200	Hsp. Helicobacter
192	13	2.4	546	19	AAW98776	H. pylori GHPO 118
193	13	2.4	563	21	AAG35401	Zea mays protein f
194	13	2.4	580	21	AAG35400	Zea mays protein f
195	13	2.4	587	21	AAG49546	Arabidopsis thalia
196	13	2.4	600	21	AAG49545	Arabidopsis thalia
197	13	2.4	605	21	AAG35399	Zea mays protein f
198	13	2.4	607	21	AAG53724	Arabidopsis thalia
199	12	2.2	13	22	AAB88296	Hsp-65 peptide epi
200	12	2.2	15	17	AAR94844	Peptide from libra
201	12	2.2	15	17	AAR94853	Peptide from libra
202	12	2.2	15	18	AAW43531	Mycobacteria sp. h
203	12	2.2	15	18	AAW43522	Mycobacteria sp. h
204	12	2.2	17	17	AAR94777	Peptide from libra
205	12	2.2	17	17	AAR94828	Peptide from libra
206	12	2.2	17	18	AAW43506	Mycobacteria sp. h
207	12	2.2	17	18	AAW43455	Mycobacteria sp. h
208	12	2.2	110	21	AAB41466	Human ORFX ORF1230
209	12	2.2	110	23	ABP32896	Human EPH family T
210	12	2.2	541	19	AAW77406	Heat shock protein
211	12	2.2	550	20	AAY23923	Amino acid sequenc
212	12	2.2	551	20	AAY23907	Amino acid sequenc
213	12	2.2	582	20	AAY23920	Amino acid sequenc
214	11	2.0	11	22	AAB88232	Hsp-65 peptide epi
215	11	2.0	11	22	AAB88272	Hsp-65 peptide epi
216	11	2.0	11	22	AAB88289	Hsp-65 peptide epi
217	11	2.0	11	22	AAB88297	Hsp-65 peptide epi
218	11	2.0	11	22	AAB88298	Hsp-65 peptide epi
219	11	2.0	12	16	AAR81613	Heat shock protein
220	11	2.0	15	17	AAR94779	Peptide from libra
221	11	2.0	15	17	AAR94872	Peptide from libra
222	11	2.0	15	18	AAW43550	Mycobacteria sp. h
223	11	2.0	15	18	AAW43457	Mycobacteria sp. h
224	11	2.0	16	21	AAY93329	Amino acid sequenc
225	11	2.0	16	23	AAU99964	Mycobacterium tube
226	11	2.0	19	17	AAR94788	Peptide from libra
227	11	2.0	19	17	AAR94789	Peptide from libra
228	11	2.0	19	18	AAW43466	Mycobacteria sp. h
229	11	2.0	19	18	AAW43467	Mycobacteria sp. h

230	11	2.0	19	22	AAB88291	Hsp-65 peptide epi
231	11	2.0	20	16	AAR81611	Heat shock protein
232	11	2.0	22	21	AAY93328	Amino acid sequenc
233	11	2.0	65	20	AAW89995	Expressed antigen
234	11	2.0	99	21	AAG12294	Zea mays protein f
235	11	2.0	104	21	AAG12293	Zea mays protein f
236	11	2.0	114	11	AAR07688	Mycobacterial 65KD
237	11	2.0	114	11	AAR07689	Mycobacterial 65KD
238	11	2.0	114	11	AAR07690	Mycobacterial 65KD
239	11	2.0	118	22	AAU02075	Synthetic autoanti
240	11	2.0	120	20	AAY14877	M. vaccae 65 kd he
241	11	2.0	120	23	ABB73483	M vaccae 65kDa hea
242	11	2.0	135	21	AAB44098	Human cancer assoc
243	11	2.0	145	21	AAB44097	Human cancer assoc
244	11	2.0	156	21	AAG12292	Zea mays protein f
245	11	2.0	177	21	AAG00869	Human secreted pro
246	11	2.0	212	22	AAB63522	Human gastric canc
247	11	2.0	247	22	AAB63519	Human gastric canc
248	11	2.0	252	22	ABG14357	Novel human diagno
249	11	2.0	258	20	AAY37099	Amino acid sequenc
250	11	2.0	281	22	AAU02079	Synthetic multi-ta
251	11	2.0	342	22	ABG14356	Novel human diagno
252	11	2.0	397	21	AAG53326	Arabidopsis thalia
253	11	2.0	412	21	AAG49547	Arabidopsis thalia
254	11	2.0	423	21	AAG53325	Arabidopsis thalia
255	11	2.0	443	21	AAG49136	Arabidopsis thalia
256	11	2.0	446	21	AAG50252	Arabidopsis thalia
257	11	2.0	459	22	AAU02077	Synthetic multi-ta
258	11	2.0	464	22	AAU45673	Propionibacterium
259	11	2.0	469	21	AAG49135	Arabidopsis thalia
260	11	2.0	477	21	AAG19772	Arabidopsis thalia
261	11	2.0	477	21	AAG50259	Arabidopsis thalia
262	11	2.0	536	21	AAG49134	Arabidopsis thalia
263	11	2.0	541	21	AAG50251	Arabidopsis thalia
264	11	2.0	568	20	AAY23924	Amino acid sequenc
265	11	2.0	586	21	AAG19771	Arabidopsis thalia
266	11	2.0	586	21	AAG50258	Arabidopsis thalia
267	11	2.0	611	21	AAG19770	Arabidopsis thalia
268	11	2.0	611	21	AAG50257	Arabidopsis thalia
269	11	2.0	648	22	ABB59450	Drosophila melanog
270	11	2.0	650	21	AAG50250	Arabidopsis thalia
271	10	1.8	10	22	AAB88269	Hsp-65 peptide epi
272	10	1.8	10	22	AAB88290	Hsp-65 peptide epi
273	10	1.8	10	22	AAB88299	Hsp-65 peptide epi
274	10	1.8	15	17	AAR97498	Mycobacterial heat
275	10	1.8	16	17	AAR94826	Peptide from libra
276	10	1.8	16	17	AAR94870	Peptide from libra
277	10	1.8	16	18	AAW43548	Mycobacteria sp. h
278	10	1.8	16	18	AAW43504	Mycobacteria sp. h
279	10	1.8	17	17	AAR94852	Peptide from libra
280	10	1.8	17	18	AAW43530	Mycobacteria sp. h
281	10	1.8	18	22	AAB88292	Hsp-65 peptide epi
282	10	1.8	576	20	AAY23928	Amino acid sequenc
283	10	1.8	577	20	AAY23922	Amino acid sequenc
284	10	1.8	577	20	AAY23927	Amino acid sequenc
285	10	1.8	587	20	AAY23929	Amino acid sequenc
286	9	1.7	9	22	AAU69053	Bacterial conserve
287	9	1.7	9	22	AAB88229	Hsp-65 peptide epi
288	9	1.7	9	22	AAB88230	Hsp-65 peptide epi
289	9	1.7	9	22	AAB88235	Hsp-65 peptide epi
290	9	1.7	9	22	AAB88279	Hsp-65 peptide epi
291	9	1.7	9	23	AAU95802	Immunogenic peptid
292	9	1.7	15	16	AAR81615	Heat shock protein
293	9	1.7	17	17	AAR94783	Peptide from libra
294	9	1.7	17	17	AAR94843	Peptide from libra
295	9	1.7	17	18	AAW43521	Mycobacteria sp. h
296	9	1.7	17	18	AAW43461	Mycobacteria sp. h
297	9	1.7	18	17	AAR94790	Peptide from libra
298	9	1.7	18	18	AAW43468	Mycobacteria sp. h
299	9	1.7	19	17	AAR94854	Peptide from libra
300	9	1.7	19	18	AAW43454	Mycobacteria sp. h
301	9	1.7	19	18	AAW43532	Mycobacteria sp. h
302	9	1.7	20	18	AAW33044	Human heat shock p
303	9	1.7	20	18	AAW12352	Human hsp60 peptid
304	9	1.7	114	11	AAR07693	Mycobacterial 65KD
305	9	1.7	558	22	ABB70885	Drosophila melanog
306	8	1.5	9	22	AAB88282	Hsp-65 peptide epi
307	8	1.5	9	23	AAE19467	Mycobacterium sp.
308	8	1.5	9	23	AAE19468	Mycobacterium sp.
309	8	1.5	13	19	AAW54696	Peptide from hsp65
310	8	1.5	15	16	AAR81623	Heat shock protein
311	8	1.5	15	16	AAR81621	Heat shock protein
312	8	1.5	15	17	AAR94847	Peptide from libra
313	8	1.5	15	17	AAR94874	Peptide from libra
314	8	1.5	15	18	AAW43552	Mycobacteria sp. h
315	8	1.5	15	18	AAW43525	Mycobacteria sp. h
316	8	1.5	15	23	AAE19455	Mycobacterium sp.
317	8	1.5	16	17	AAR94875	Peptide from libra
318	8	1.5	16	18	AAW43553	Mycobacteria sp. h
319	8	1.5	16	22	AAB88293	Hsp-65 peptide epi
320	8	1.5	19	17	AAR94784	Peptide from libra
321	8	1.5	19	18	AAW43462	Mycobacteria sp. h
322	8	1.5	26	22	AAB88309	Hsp-65 peptide epi
323	8	1.5	72	21	AAG33002	Arabidopsis thalia
324	8	1.5	93	23	ABP07535	Human ORFX protein
325	8	1.5	122	22	ABB03141	Human musculoskele
326	8	1.5	134	21	AAG33001	Arabidopsis thalia
327	8	1.5	156	20	AAW97723	Staphylococcus aur
328	8	1.5	244	21	AAG35964	Zea mays protein f
329	8	1.5	246	20	AAY60028	Human endometrium
330	8	1.5	246	22	AAU45922	Propionibacterium
331	8	1.5	256	22	AAU67775	Propionibacterium
332	8	1.5	287	22	AAU66503	Propionibacterium
333	8	1.5	338	21	AAG35963	Zea mays protein f
334	8	1.5	364	21	AAG35962	Zea mays protein f
335	8	1.5	440	21	AAB00061	VRN2 polypeptide.
336	8	1.5	524	23	ABB91959	Herbicidally activ
337	8	1.5	533	22	AAB85988	Amino acid sequenc
338	8	1.5	545	20	AAW67800	Thermococcus sp. K
339	8	1.5	546	18	AAW26355	KOD-1 heat shock p
340	8	1.5	546	20	AAW67798	Thermococcus sp. K
341	8	1.5	548	20	AAW67797	Thermococcus sp. K
342	8	1.5	549	20	AAW67799	Thermococcus sp. K
343	8	1.5	552	22	AAB96798	Putative P. abyssi
344	8	1.5	1106	22	AAU03552	Human protein kina
345	8	1.5	1191	21	AAG46051	Arabidopsis thalia
346	8	1.5	1195	21	AAG46050	Arabidopsis thalia
347	8	1.5	1325	21	AAG46049	Arabidopsis thalia
348	8	1.5	1422	22	ABG02345	Novel human diagno
349	8	1.5	1504	22	ABB60358	Drosophila melanog
350	8	1.5	1975	22	ABB62094	Drosophila melanog

ALIGNMENTS

RESULT 1
AAY23904
ID AAY23904 standard; Protein; 545 AA.
XX
AC AAY23904;
XX
DT 22-SEP-1999 (first entry)
XX
DE Streptococcus pyogenes heat shock protein (Hsp)60-2.
XX
KW Heat shock protein; Hsp60-2; immune response; immunological carrier;
KW cancer control; tumour; sarcoma; cancer; gene therapy.
XX
OS Streptococcus pyogenes.
XX
PN WO9935270-A1.
XX
PD 15-JUL-1999.
XX
PF 29-DEC-1998; 98WO-CA01203.

XX
PR 31-DEC-1997; 97US-0001737.
XX
PA (STRE-) STRESSGEN BIOTECHNOLOGIES CORP.
XX
PI Mizzen L, Wisniewski J;
XX
DR WPI; 1999-430397/36.
DR N-PSDB; AAX86155.
XX
PT New nucleic acid encoding heat shock protein-60 from Streptococcus,
PT useful in vaccines, as carriers for other immunogens, as anticancer
PT agents and for diagnosis
XX
PS Claim 11; Fig 4A-B; 176pp; English.
XX
CC The present sequence represents a heat shock protein, designated Hsp60-2.
CC The protein, its fragments, variants and fusion proteins, are
CC used to elicit or enhance an immune response against Streptococcus,
CC and to elicit a similar response to a target antigen fused to the
CC protein. Unlike other immunological carriers, Hsp60 proteins are not
CC immunosuppressive so provide an increased response to any conjugated or
CC fused antigen. Also, where used for cancer control, they lack the side
CC effects associated with endotoxins. They can also be used to detect
CC specific antibodies and in treatment or prevention of tumours
CC (e.g. sarcoma or cancers of breast, ovary, prostate, lung, pancreas or
CC liver). The Hsp60 polynucleotide is used for recombinant production
CC of the protein, as a source of primers and probes for detecting
CC streptococci in standard hybridization/amplification assays, and
CC therapeutically in gene therapy vectors.
XX
SQ Sequence 545 AA;

Query Match 100.0%; Score 545; DB 20; Length 545;
Best Local Similarity 100.0%; Pred. No. 0;
Matches 545; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy       1 MAKEIKFSADARAAMVRGVDMLADTVKVTLGPKGRNVVLEKAFGSPLITNDGVTIAKEIE 60
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db       1 MAKEIKFSADARAAMVRGVDMLADTVKVTLGPKGRNVVLEKAFGSPLITNDGVTIAKEIE 60

Qy      61 LEDHFENMGAKLVSEVASKTNDIAGDGTTTATVLTQAIVHEGLKNVTAGANPIGIRRGIE 120
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db      61 LEDHFENMGAKLVSEVASKTNDIAGDGTTTATVLTQAIVHEGLKNVTAGANPIGIRRGIE 120

Qy     121 TATATAVEALKAIAQPVSGKEAIAQVAAVSSRSEKVGEYISEAMERVGNDGVITIEESRG 180
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     121 TATATAVEALKAIAQPVSGKEAIAQVAAVSSRSEKVGEYISEAMERVGNDGVITIEESRG 180

Qy     181 METELEVVEGMQFDRGYLSQYMVTDNEKMVADLENPFILITDKKVSNIQDILPLLEEVLK 240
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     181 METELEVVEGMQFDRGYLSQYMVTDNEKMVADLENPFILITDKKVSNIQDILPLLEEVLK 240

Qy     241 TNRPLLIIADDVDGEALPTLVLNKIRGTFNVVAVKAPGFGDRRKAMLEDIAILTGGTVIT 300
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     241 TNRPLLIIADDVDGEALPTLVLNKIRGTFNVVAVKAPGFGDRRKAMLEDIAILTGGTVIT 300

Qy     301 EDLGLELKDATMTALGQAAKITVDKDSTVIVEGSGSSEAIANRIALIKSQLETTTSDFDR 360
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     301 EDLGLELKDATMTALGQAAKITVDKDSTVIVEGSGSSEAIANRIALIKSQLETTTSDFDR 360

Qy     361 EKLQERLAKLAGGVAVIKVGAPTETALKEMKLRIEDALNATRAAVEEGIVAGGGTALITV 420
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     361 EKLQERLAKLAGGVAVIKVGAPTETALKEMKLRIEDALNATRAAVEEGIVAGGGTALITV 420

Qy     421 IEKVAALELEGDDATGRNIVLRALEEPVRQIALNAGYEGSVVIDKLKNSPAGTGFNAATG 480
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     421 IEKVAALELEGDDATGRNIVLRALEEPVRQIALNAGYEGSVVIDKLKNSPAGTGFNAATG 480

Qy     481 EWVDMIKTGIIDPVKVTRSALQNAASVASLILTTEAVVANKPEPATPAPAMPAGMDPGMM 540
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     481 EWVDMIKTGIIDPVKVTRSALQNAASVASLILTTEAVVANKPEPATPAPAMPAGMDPGMM 540
```

```
Qy     541 GGMGG 545
           |||||
Db     541 GGMGG 545
```

RESULT 2
ABP28529
ID ABP28529 standard; Protein; 545 AA.
XX
AC ABP28529;
XX
DT 02-JUL-2002 (first entry)
XX
DE Streptococcus polypeptide SEQ ID NO 6234.
XX
KW Streptococcus; GAS; GBS; group B streptococcus; Streptococcus agalactiae;
KW group A streptococcus; Streptococcus pyogenes; antibacterial;
KW antiinflammatory; infection; vaccine; meningitis; gene therapy.
XX
OS Streptococcus pyogenes.
XX
PN WO200234771-A2.
XX
PD 02-MAY-2002.
XX
PF 29-OCT-2001; 2001WO-GB04789.
XX
PR 27-OCT-2000; 2000GB-0026333.
PR 24-NOV-2000; 2000GB-0028727.
PR 07-MAR-2001; 2001GB-0005640.
XX
PA (CHIR-) CHIRON SPA.
PA (GENO-) INST GENOMIC RES.
XX
PI Telford J, Masignani V, Margarit Ros YI, Grandi G, Fraser C;
PI Tettelin H;
XX
DR WPI; 2002-352536/38.
DR N-PSDB; ABN69160.
XX
PT New Streptococcus protein for the treatment or prevention of infection
PT or disease caused by Streptococcus bacteria, such as meningitis, and
PT for detecting a compound that binds to the protein -
XX
PS Claim 1; Page 3786; 4525pp; English.
XX
CC The invention relates to a protein (ABP25413-ABP30895) from group B
CC streptococcus/GBS (Streptococcus agalactiae) or group A streptococcus/GAS
CC (Streptococcus pyogenes), comprising one of 5483 sequences (SI), given in
CC the specification. The proteins have antibacterial and antiinflammatory
CC activity. (I), nucleic acids encoding (I), ABN66044-ABN71526 and
CC antibodies that bind (I) are used in the manufacture of medicaments for
CC the treatment or prevention of infection or disease caused by
CC Streptococcus bacteria, particularly S. agalactiae and S. pyrogenes.
CC Nucleic acids encoding (I) are used to detect Streptococcus in a
CC biological sample. (I) is used to determine whether a compound binds to
CC (I). A composition comprising (I) or a nucleic acid encoding (I), may be
CC used as a vaccine or diagnostic composition. The disease caused by
CC Streptococcus that is prevented or treated may be meningitis. Nucleic
CC acid encoding (I) may be used to recombinantly produce (I) and may be
CC used in gene therapy. Antibodies to (I) are used for affinity
CC chromatography, immunoassays, and distinguishing/identifying
CC Streptococcus proteins.
XX
SQ Sequence 545 AA;

Query Match 98.7%; Score 538; DB 23; Length 545;
Best Local Similarity 100.0%; Pred. No. 0;
Matches 538; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy       5 IKFSADARAAMVRGVDMLADTVKVTLGPKGRNVVLEKAFGSPLITNDGVTIAKEIELEDH 64
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db       7 IKFSADARAAMVRGVDMLADTVKVTLGPKGRNVVLEKAFGSPLITNDGVTIAKEIELEDH 66
```

```
Qy      65 FENMGAKLVSEVASKTNDIAGDGTTTATVLTQAIVHEGLKNVTAGANPIGIRRGIETATA 124
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db      67 FENMGAKLVSEVASKTNDIAGDGTTTATVLTQAIVHEGLKNVTAGANPIGIRRGIETATA 126

Qy     125 TAVEALKAIAQPVSGKEAIAQVAAVSSRSEKVGEYISEAMERVGNDGVITIEESRGMETE 184
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     127 TAVEALKAIAQPVSGKEAIAQVAAVSSRSEKVGEYISEAMERVGNDGVITIEESRGMETE 186

Qy     185 LEVVEGMQFDRGYLSQYMVTDNEKMVADLENPFILITDKKVSNIQDILPLLEEVLKTNRP 244
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     187 LEVVEGMQFDRGYLSQYMVTDNEKMVADLENPFILITDKKVSNIQDILPLLEEVLKTNRP 246

Qy     245 LLIIADDVDGEALPTLVLNKIRGTFNVVAVKAPGFGDRRKAMLEDIAILTGGTVITEDLG 304
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     247 LLIIADDVDGEALPTLVLNKIRGTFNVVAVKAPGFGDRRKAMLEDIAILTGGTVITEDLG 306

Qy     305 LELKDATMTALGQAAKITVDKDSTVIVEGSGSSEAIANRIALIKSQLETTTSDFDREKLQ 364
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     307 LELKDATMTALGQAAKITVDKDSTVIVEGSGSSEAIANRIALIKSQLETTTSDFDREKLQ 366

Qy     365 ERLAKLAGGVAVIKVGAPTETALKEMKLRIEDALNATRAAVEEGIVAGGGTALITVIEKV 424
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     367 ERLAKLAGGVAVIKVGAPTETALKEMKLRIEDALNATRAAVEEGIVAGGGTALITVIEKV 426

Qy     425 AALELEGDDATGRNIVLRALEEPVRQIALNAGYEGSVVIDKLKNSPAGTGFNAATGEWVD 484
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     427 AALELEGDDATGRNIVLRALEEPVRQIALNAGYEGSVVIDKLKNSPAGTGFNAATGEWVD 486

Qy     485 MIKTGIIDPVKVTRSALQNAASVASLILTTEAVVANKPEPATPAPAMPAGMDPGMMGG 542
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     487 MIKTGIIDPVKVTRSALQNAASVASLILTTEAVVANKPEPATPAPAMPAGMDPGMMGG 544
```

RESULT 3
ABP28528
ID ABP28528 standard; Protein; 540 AA.
XX
AC ABP28528;
XX
DT 02-JUL-2002 (first entry)
XX
DE Streptococcus polypeptide SEQ ID NO 6232.
XX
KW Streptococcus; GAS; GBS; group B streptococcus; Streptococcus agalactiae;
KW group A streptococcus; Streptococcus pyogenes; antibacterial;
KW antiinflammatory; infection; vaccine; meningitis; gene therapy.
XX
OS Streptococcus agalactiae.
XX
PN WO200234771-A2.
XX
PD 02-MAY-2002.
XX
PF 29-OCT-2001; 2001WO-GB04789.
XX
PR 27-OCT-2000; 2000GB-0026333.
PR 24-NOV-2000; 2000GB-0028727.
PR 07-MAR-2001; 2001GB-0005640.
XX
PA (CHIR-) CHIRON SPA.
PA (GENO-) INST GENOMIC RES.
XX
PI Telford J, Masignani V, Margarit Ros YI, Grandi G, Fraser C;
PI Tettelin H;
XX
DR WPI; 2002-352536/38.
DR N-PSDB; ABN69159.
XX
PT New Streptococcus protein for the treatment or prevention of infection
PT or disease caused by Streptococcus bacteria, such as meningitis, and
PT for detecting a compound that binds to the protein -
XX
PS Claim 1; Page 3785; 4525pp; English.
XX
CC The invention relates to a protein (ABP25413-ABP30895) from group B
CC streptococcus/GBS (Streptococcus agalactiae) or group A streptococcus/GAS
CC (Streptococcus pyogenes), comprising one of 5483 sequences (S1), given in
CC the specification. The proteins have antibacterial and antiinflammatory
CC activity. (I), nucleic acids encoding (I), ABN66044-ABN71526 and
CC antibodies that bind (I) are used in the manufacture of medicaments for
CC the treatment or prevention of infection or disease caused by
CC Streptococcus bacteria, particularly S. agalactiae and S. pyrogenes.
CC Nucleic acids encoding (I) are used to detect Streptococcus in a
CC biological sample. (I) is used to determine whether a compound binds to
CC (I). A composition comprising (I) or a nucleic acid encoding (I), may be
CC used as a vaccine or diagnostic composition. The disease caused by
CC Streptococcus that is prevented or treated may be meningitis. Nucleic
CC acid encoding (I) may be used to recombinantly produce (I) and may be
CC used in gene therapy. Antibodies to (I) are used for affinity
CC chromatography, immunoassays, and distinguishing/identifying
CC Streptococcus proteins.
XX
SQ Sequence 540 AA;

```
  Query Match             14.3%;  Score 78;  DB 23;  Length 540;
  Best Local Similarity   100.0%;  Pred. No. 3e-66;
  Matches   78;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      22 LADTVKVTLGPKGRNVVLEKAFGSPLITNDGVTIAKEIELEDHFENMGAKLVSEVASKTN 81
           |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db      22 LADTVKVTLGPKGRNVVLEKAFGSPLITNDGVTIAKEIELEDHFENMGAKLVSEVASKTN 81

Qy      82 DIAGDGTTTATVLTQAIV 99
           ||||||||||||||||||
Db      82 DIAGDGTTTATVLTQAIV 99
```

RESULT 4
AAM01101
ID AAM01101 standard; Protein; 540 AA.
XX
AC AAM01101;
XX
DT 02-OCT-2001 (first entry)
XX
DE CFE 104 protein sequence.
XX
KW Antibacterial; vaccine; gene therapy; bacterial cell wall viability;
KW CFE; CEG; Conserved Essential Gene; bacterial infection;
KW antisense therapy; antibiotic resistance.
XX
OS Streptococcus pneumoniae.
XX
PN WO200149721-A2.
XX
PD 12-JUL-2001.
XX
PF 29-DEC-2000; 2000WO-US35604.
XX
PR 30-DEC-1999; 99US-0174089.
XX
PA (BRIM) BRISTOL-MYERS SQUIBB CO.
XX
PI Dougherty TJ, Pucci MJ, Dougherty BA, Davison DB, Bruccoleri RE;
PI Thanassi JA;
XX
DR WPI; 2001-496721/54.
DR N-PSDB; AAH90800.
XX
PT Nucleic acids encoding conserved essential genes involved in bacterial
PT replication which are potential targets for the treatment of antibiotic
PT resistant bacterial infections -
XX
PS Claim 27; Pages 356-358; 380pp; English.
XX

```
CC   The present invention relates to nucleic acids (AAH90701-AAH90918)
CC   encoding polypeptides (AAM01002-AAM01114), which are essential for the
CC   viability of a bacterial cell wall. The acronym CFE stands for "CEG For
CC   Expression", where CEG stands for "Conserved Essential Gene". The nucleic
CC   acids are useful for detecting the presence of proteins essential for the
CC   viability of a bacterial cell wall in samples such as cells, tissues,
CC   biological fluids, blood, serum, nose, ear or throat swabs with ligands,
CC   and for detecting corresponding target nucleic acid molecules with
CC   complementary sequences. The nucleic acids are also useful for
CC   determining whether a genomic nucleotide sequence of interest is
CC   essential for viability of a bacterial cell or whether it resides within
CC   an operon, by integrating an exogeneous nucleotide sequence comprising a
CC   portion of an open reading frame of the genomic sequence of interest
CC   (comprising 200-500 base pairs) into the genomic sequence of interest
CC   which confers a selectable phenotype to the cell, and determining cell
CC   viability with a selection agent such as chloramphenicol. The nucleic
CC   acids and proteins are also useful as vaccines and for treating bacterial
CC   infections with gene therapy and antisense therapy. The nucleic acids
CC   also enable identification of targets suitable for the treatment of
CC   antibiotic resistant bacterial infections.
XX
SQ   Sequence   540 AA;

  Query Match             12.8%;  Score 70;  DB 22;  Length 540;
  Best Local Similarity   100.0%;  Pred. No. 1.6e-58;
  Matches   70;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy     242 NRPLLIIADDVDGEALPTLVLNKIRGTFNVVAVKAPGFGDRRKAMLEDIAILTGGTVITE 301
           |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     242 NRPLLIIADDVDGEALPTLVLNKIRGTFNVVAVKAPGFGDRRKAMLEDIAILTGGTVITE 301

Qy     302 DLGLELKDAT 311
           ||||||||||
Db     302 DLGLELKDAT 311


RESULT 5
AAY23902
ID   AAY23902 standard; Protein; 541 AA.
XX
AC   AAY23902;
XX
DT   22-SEP-1999  (first entry)
XX
DE   Streptococcus pneumoniae heat shock protein (Hsp)60-2.
XX
KW   Heat shock protein; Hsp60-2; immune response; immunological carrier;
KW   cancer control; tumour; sarcoma; cancer; gene therapy.
XX
OS   Streptococcus pneumoniae.
XX
PN   WO9935270-A1.
XX
PD   15-JUL-1999.
XX
PF   29-DEC-1998;   98WO-CA01203.
XX
PR   31-DEC-1997;   97US-0001737.
XX
PA   (STRE-) STRESSGEN BIOTECHNOLOGIES CORP.
XX
PI   Mizzen L,  Wisniewski J;
XX
DR   WPI; 1999-430397/36.
DR   N-PSDB; AAX86153.
XX
PT   New nucleic acid encoding heat shock protein-60 from Streptococcus,
PT   useful in vaccines, as carriers for other immunogens, as anticancer
PT   agents and for diagnosis
XX
PS   Claim 11; Fig 2A-B; 176pp; English.
XX
CC   The present sequence represents a heat shock protein, designated Hsp60-2.
CC   The protein, its fragments, variants and fusion proteins, are
CC   used to elicit or enhance an immune response against Streptococcus,
CC   and to elicit a similar response to a target antigen fused to the
CC   protein. Unlike other immunological carriers, Hsp60 proteins are not
CC   immunosuppressive so provide an increased response to any conjugated or
CC   fused antigen. Also, where used for cancer control, they lack the side
CC   effects associated with endotoxins. They can also be used to detect
CC   specific antibodies and in treatment or prevention of tumours
CC   (e.g. sarcoma or cancers of breast, ovary, prostate, lung, pancreas or
CC   liver). The Hsp60 polynucleotide is used for recombinant production
CC   of the protein, as a source of primers and probes for detecting
CC   streptococci in standard hybridization/amplification assays, and
CC   therapeutically in gene therapy vectors.
XX
SQ   Sequence   541 AA;

  Query Match             12.8%;  Score 70;  DB 20;  Length 541;
  Best Local Similarity   100.0%;  Pred. No. 1.6e-58;
  Matches   70;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy     242 NRPLLIIADDVDGEALPTLVLNKIRGTFNVVAVKAPGFGDRRKAMLEDIAILTGGTVITE 301
           |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     242 NRPLLIIADDVDGEALPTLVLNKIRGTFNVVAVKAPGFGDRRKAMLEDIAILTGGTVITE 301

Qy     302 DLGLELKDAT 311
           ||||||||||
Db     302 DLGLELKDAT 311


RESULT 6
AAB31619
ID   AAB31619 standard; Protein; 641 AA.
XX
AC   AAB31619;
XX
DT   30-APR-2001  (first entry)
XX
DE   Amino acid sequence of Hsp65-E7 fusion protein.
XX
KW   Heat shock protein; Hsp; Th1 response; Th1 cell; CD4+ T lymphocyte cell;
KW   lymphocyte; Hsp65; Hsp40; Hsp10; Hsp60; Hsp71; microbial pathogen;
KW   E7 protein.
XX
OS   Synthetic.
OS   Streptococcus pneumoniae.
OS   Human papillomavirus.
XX
PN   WO200104344-A2.
XX
PD   18-JAN-2001.
XX
PF   10-JUL-2000; 2000WO-US18828.
XX
PR   08-JUL-1999;   99US-0143757.
XX
PA   (STRE-) STRESSGEN BIOTECHNOLOGIES CORP.
XX
PI   Siegel M,  Chu NR,  Mizzen LA;
XX
DR   WPI; 2001-138361/14.
DR   N-PSDB; AAF25036.
XX
PT   Screening for compounds that stimulate Th1-like responses in CD4+ T
PT   lymphocyte cells
XX
PS   Example 15; Fig 15A-B; 88pp; English.
XX
CC   The present sequence represents a fusion protein comprising a
CC   Streptococcus pneumoniae heat shock protein (Hsp) 65 fused to a HPV16 E7
CC   protein. The fusion protein is used in the method of the invention. The
CC   specification describes a method of determining whether a compound
CC   stimulates a Th1-like response. Th1 cells are a subset of CD4+
CC   T lymphocyte cells. The method comprises contacting naive lymphocytes
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CC   in vitro with a fusion protein comprising at least a fragment of Hsp,
CC   and then detecting the TH1-like response exhibited by the cell sample.
CC   The proteins which may be used in the method of the invention are Hsp65,
CC   Hsp40, Hsp10, Hsp60, and Hsp71. The method may be used to identify
CC   compounds that stimulate Th1-like responses in response to microbial
CC   pathogens.
XX
SQ   Sequence   641 AA;

  Query Match            12.8%;  Score 70;  DB 22;  Length 641;
  Best Local Similarity  100.0%;  Pred. No. 1.9e-58;
  Matches   70;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy     242 NRPLLIIADDVDGEALPTLVLNKIRGTFNVVAVKAPGFGDRRKAMLEDIAILTGGTVITE 301
           |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     242 NRPLLIIADDVDGEALPTLVLNKIRGTFNVVAVKAPGFGDRRKAMLEDIAILTGGTVITE 301

Qy     302 DLGLELKDAT 311
           ||||||||||
Db     302 DLGLELKDAT 311


RESULT 7
ABB53701
ID   ABB53701 standard; Protein; 542 AA.
XX
AC   ABB53701;
XX
DT   16-MAY-2002  (first entry)
XX
DE   Lactococcus lactis protein groEL.
XX
KW   Biosynthesis; biodegradation; lactic bacterium; yogurt; cheese.
XX
OS   Lactococcus lactis IL1403.
XX
PN   FR2807446-A1.
XX
PD   12-OCT-2001.
XX
PF   11-APR-2000; 2000FR-0004630.
XX
PR   11-APR-2000; 2000FR-0004630.
XX
PA   (INRG ) INRA INST NAT RECH AGRONOMIQUE.
XX
PI   Bolotine A,  Sorokine A,  Renault P,  Ehrlich SD;
XX
DR   WPI; 2002-043418/06.
XX
PT   New nucleotide sequence useful in the identification or Lactococcus
PT   lactis and related species -
XX
PS   Claim 6; SEQ ID No 403; 2504pp; French.
XX
CC   The present invention is related to a Lactococcus lactis nucleotide
CC   sequence (ABA90521) and related proteins (ABB53300-ABB55621). The
CC   nucleic acid sequence is useful in the detection and/or amplification of
CC   nucleic acid sequence, particularly to identify Lactococcus lactis or
CC   related species. The proteins of the invention are useful for the
CC   biosynthesis or biodegradation of a composition of interest. The
CC   invention helps research in lactic bacteria, particularly useful in the
CC   production of yogurt and cheese.
CC   Note: The sequence data for this patent is based on equivalent patent
CC   WO200177334 (published 18-OCT-2001) which is available in electronic
CC   format directly from WIPO at ftp.wipo.int/pub/published_pct_sequences.
XX
SQ   Sequence   542 AA;

  Query Match            10.3%;  Score 56;  DB 23;  Length 542;
  Best Local Similarity  100.0%;  Pred. No. 5.1e-45;
  Matches   56;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      44 GSPLITNDGVTIAKEIELEDHFENMGAKLVSEVASKTNDIAGDGTTTATVLTQAIV 99
           |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db      44 GSPLITNDGVTIAKEIELEDHFENMGAKLVSEVASKTNDIAGDGTTTATVLTQAIV 99


RESULT 8
ABB49241
ID   ABB49241 standard; Protein; 542 AA.
XX
AC   ABB49241;
XX
DT   05-FEB-2002  (first entry)
XX
DE   Listeria monocytogenes protein #1945.
XX
KW   Antibacterial; gene therapy; vaccine; biosynthesis; biodegradation;
KW   vitamin B12; bacterial infection; disease.
XX
OS   Listeria monocytogenes.
XX
PN   WO200177335-A2.
XX
PD   18-OCT-2001.
XX
PF   11-APR-2001; 2001WO-FR01118.
XX
PR   11-APR-2000; 2000FR-0004629.
XX
PA   (INSP ) INST PASTEUR.
XX
PI   Buchrieser C,  Frangeul L,  Couve E,  Rusniok C,  Fsihi H,  Dehoux P;
PI   Dussurget O,  Chetouani F,  Nedjari H,  Glaser P,  Kunst F,  Cossart P;
PI   Daniels J,  Goebel W,  Kreft J,  Kuhn M,  Ng E,  Vazquez-Boland JA;
PI   Dominguez-Bernal G,  Garrido-Garcia P,  Tierrez-Martinez A,  Amend A;
PI   Chakraborty T,  Domann E,  Hain T,  Berche P,  Charbit A,  Durant L;
PI   Perez-Diaz J,  Baquero F,  Garcia Del Portillo F,  Gomez-Lopez N;
PI   Maduenio E,  De Pablos B,  Wehland J,  Kaerst U,  Entian K,  Hauf J;
PI   Rose M,  Voss H;
XX
DR   WPI; 2002-010914/01.
XX
PT   Genomic sequence for Listeria monocytogenes, useful e.g. for treatment
PT   and prevention of Listeria and related bacterial infections, and
PT   related polypeptides -
XX
PS   Claim 6; SEQ ID No 1946; 192pp; French.
XX
CC   The present invention relates to the genome sequence of Listeria
CC   monocytogenes EGD-e (see ABA03041). The genome sequence and fragments of
CC   it are useful for selecting probes and primers for detecting genes in L.
CC   monocytogenes and related organisms, and for studying genetic
CC   polymorphisms and other genomes. The present sequence is a protein
CC   encoded by the genome sequence of the present invention. Proteins
CC   expressed from the genome sequence are useful for raising specific
CC   antibodies, identification of L. monocytogenes and related organisms, and
CC   for biosynthesis and biodegradation, especially biosynthesis of Vitamin
CC   B12. The genome sequence and proteins encoded by it are also useful for
CC   selecting compounds that regulate gene expression and cell replication
CC   and modulate L. monocytogenes-related diseases. In addition, the genome
CC   sequence and proteins encoded by it are useful in pharmaceutical and
CC   vaccines compositions for the treatment or prevention of infections by L.
CC   monocytogenes and related organisms.
CC   Note: The sequence data for this patent did not form part of the printed
CC   specification, but was obtained in electronic format directly from WIPO
CC   at ftp.wipo.int/pub/published_pct_sequences.
XX
SQ   Sequence   542 AA;

  Query Match            5.7%;  Score 31;  DB 23;  Length 542;
  Best Local Similarity  100.0%;  Pred. No. 6.6e-21;
  Matches   31;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy     266 RGTFNVVAVKAPGFGDRRKAMLEDIAILTGG 296
```

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          ||||||||||||||||||||||||||||||
Db    266 RGTFNVVAVKAPGFGDRRKAMLEDIAILTGG 296


RESULT 9
AAY23916
ID   AAY23916 standard; Protein; 539 AA.
XX
AC   AAY23916;
XX
DT   22-SEP-1999  (first entry)
XX
DE   Amino acid sequence of a heat shock protein.
XX
KW   Heat shock protein; Hsp; immune response; immunological carrier;
KW   cancer control; tumour; sarcoma; cancer; gene therapy.
XX
OS   Staphylococcus aureus.
XX
PN   WO9935270-A1.
XX
PD   15-JUL-1999.
XX
PF   29-DEC-1998;   98WO-CA01203.
XX
PR   31-DEC-1997;   97US-0001737.
XX
PA   (STRE-) STRESSGEN BIOTECHNOLOGIES CORP.
XX
PI   Mizzen L,  Wisniewski J;
XX
DR   WPI; 1999-430397/36.
XX
PT   New nucleic acid encoding heat shock protein-60 from Streptococcus;
PT   useful in vaccines, as carriers for other immunogens, as anticancer
PT   agents and for diagnosis
XX
PS   Disclosure; Fig 10A-E; 176pp; English.
XX
CC   AAY23905-30 represent heat shock proteins (Hsps). The specification
CC   describes Streptococcal Hsps, designated Hsp60. These proteins, their
CC   fragments, variants and fusion proteins, are used to elicit or enhance
CC   an immune response against Streptococcus, and to elicit a similar
CC   response to a target antigen fused to the protein. Unlike other
CC   immunological carriers, Hsp60 proteins are not immunosuppressive so
CC   provide an increased response to any conjugated or fused antigen. Also,
CC   where used for cancer control, they lack the side effects associated
CC   with endotoxins. They can also be used to detect specific antibodies
CC   and in treatment or prevention of tumours (e.g. sarcoma or cancers of
CC   breast, ovary, prostate, lung, pancreas or liver). The Hsp60
CC   polynucleotide is used for recombinant production of the protein, as
CC   a source of primers and probes for detecting streptococci in standard
CC   hybridization/amplification assays, and therapeutically in gene
CC   therapy vectors.
XX
SQ   Sequence   539 AA;

  Query Match             4.8%;  Score 26;  DB 20;  Length 539;
  Best Local Similarity   100.0%;  Pred. No. 4.3e-16;
  Matches   26;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy    356 SDFDREKLQERLAKLAGGVAVIKVGA 381
          ||||||||||||||||||||||||||
Db    357 SDFDREKLQERLAKLAGGVAVIKVGA 382


RESULT 10
AAY37100
ID   AAY37100 standard; Protein; 224 AA.
XX
AC   AAY37100;
XX
DT   07-OCT-1999  (first entry)
XX
DE   Amino acid sequence of a Chlamydia trachomatis protein.
XX
KW   Vaccine; eye disease; conventional trachoma; nonendemic trachoma;
KW   paratrachoma; inclusion conjunctivitis; genital disease; perihepatitis;
KW   nongonococcal uretritis; epidymitis; cervicitis; salpingitis;
KW   bartholinitis; pneumopathy; venereal lymphogranulomatosis.
XX
OS   Chlamydia trachomatis.
XX
PN   WO9928475-A2.
XX
PD   10-JUN-1999..
XX
PF   27-NOV-1998;   98WO-IB01939.
XX
PR   04-NOV-1998;   98US-0107077.
PR   28-NOV-1997;   97FR-0015041.
PR   17-DEC-1997;   97FR-0016034.
XX
PA   (GEST ) GENSET.
XX
PI   Griffais R;
XX
DR   WPI; 1999-371125/31.
XX
PT   Genome sequence of Chlamydia trachomatis
XX
PS   Disclosure; Page 900; 1755pp; English.
XX
CC   AAY36754-Y37949 are encoded by open reading frames (ORFs) of the genome
CC   of Chlamydia trachomatis (see AAZ01425). The polypeptides can be used as
CC   vaccines against Chlamydia trachomatis. Antisense and ribozyme sequences
CC   can also be used to control growth of the microorganism. Chlamydia
CC   trachomatis is responsible for a large number of diseases, e.g. eye
CC   diseases such as conventional trachoma, nonendemic trachoma,
CC   paratrachoma, and inclusion conjunctivitis; genital diseases such as
CC   nongonococcal uretritis, epidymitis, cervicitis, salpingitis,
CC   perihepatitis, bartholinitis; pneumopathy in breast feeding infants;
CC   and venereal lymphogranulomatosis. The polypeptides of the invention
CC   may be of use in treating these diseases.
XX
SQ   Sequence   224 AA;

  Query Match             4.4%;  Score 24;  DB 20;  Length 224;
  Best Local Similarity   100.0%;  Pred. No. 1.6e-14;
  Matches   24;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy    273 AVKAPGFGDRRKAMLEDIAILTGG 296
          ||||||||||||||||||||||||
Db     20 AVKAPGFGDRRKAMLEDIAILTGG 43


RESULT 11
AAW10977
ID   AAW10977 standard; Protein; 419 AA.
XX
AC   AAW10977;
XX
DT   21-MAY-1997  (first entry)
XX
DE   Dihydrofolate reductase-Chlamydia pneumoniae antigen fusion protein.
XX
KW   DHFR; dihydrofolate reductase; Chlamydia pneumoniae; pneumonia;
KW   antibody production; diagnosis; fusion protein.
XX
OS   Chlamydia pneumoniae (chimeric).
XX
FH   Key             Location/Qualifiers
FT   Region          1..160
FT                   /note= "dihydrofolate reductase region"
FT   Region          161..170
FT                   /note= "peptide linker"
```

```
FT   Misc-difference 171..407
FT                   /note= "Chlamydia pneumoniae antigen region"
XX
PN   JP08294391-A.
XX
PD   12-NOV-1996.
XX
PF   28-APR-1995;   95JP-0106007.
XX
PR   28-APR-1995;   95JP-0106007.
XX
PA   (HITB ) HITACHI CHEM CO LTD.
XX
DR   WPI; 1997-036901/04.
XX
PT   Fusion protein comprising di:hydro:folate reductase and Chlamydia
PT   pneumoniae antigen - useful in prodn. of C. pneumoniae antibodies
PT   for diagnosis of infection
XX
PS   Claim 5; Page 14-15; 17pp; Japanese..
XX
CC   AAW10977 is a dihydrofolate reductase (DHFR)-Chlamydia pneumoniae
CC   antigen fusion protein. Fusion proteins that may be made consist of at
CC   least 5 contiguous amino acids of the Chlamydia pneumoniae antigen
CC   linked to the N-terminus of a DHFR protein (see AAW10974). Fusion
CC   proteins produced are useful for the production of anti-C. pneumoniae
CC   antibodies which are useful in the diagnosis and treatment of infectious
CC   diseases caused by C. pneumoniae.
XX
SQ   Sequence   419 AA;

  Query Match             4.4%;  Score 24;  DB 18;  Length 419;
  Best Local Similarity   100.0%;  Pred. No. 2.9e-14;
  Matches   24;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy     273 AVKAPGFGDRRKAMLEDIAILTGG 296
           |||||||||||||||||||||||||
Db     243 AVKAPGFGDRRKAMLEDIAILTGG 266


RESULT 12
AAW11865
ID   AAW11865 standard; Protein; 419 AA.
XX
AC   AAW11865;
XX
DT   17-APR-1997  (first entry)
XX
DE   DHFR/Polypeptide B fusion protein #2.
XX
KW   Dihydrofolate reductase; DHFR; C. pneumoniae; detection; antibody;
KW   fusion protein; antigen; diagnosis.
XX
OS   Chlamydia pneumoniae.
XX
FH   Key             Location/Qualifiers
FT   Protein         1..160
FT                   /label= DHFR
FT   Protein         172..407
FT                   /label= Polypeptide_B_residues_203-439
XX
PN   JP08304403-A.
XX
PD   22-NOV-1996.
XX
PF   28-APR-1995;   95JP-0106012.
XX
PR   28-APR-1995;   95JP-0106012.
XX
PA   (HITB ) HITACHI CHEM CO LTD.
XX
DR   WPI; 1997-056177/06.
XX
PT   Detection and determination of anti-Chlamydia pneumoniae antibody -
PT   using an antigenic polypeptide fused to the Chlamydia
PT   di:hydro:folate reductase as the antigen
XX
PS   Claim 5; Page 15-16; 17pp; Japanese.
XX
CC   This sequence represents a fusion between C. pneumoniae polypeptide
CC   B and dihydrofolate reductase (DHFR).  This protein was used in the
CC   method of the invention for the detection and determination of
CC   anti-Chlamydia pneumoniae antibody.  DHFR and polypeptide B were
CC   combined directly or through an amino acid sequence to give a fusion
CC   protein to act as an antigen.  The fusion protein may be used in
CC   a reagent which has a high reliability and which gives an exact
CC   diagnosis.
XX
SQ   Sequence   419 AA;

  Query Match             4.4%;  Score 24;  DB 18;  Length 419;
  Best Local Similarity   100.0%;  Pred. No. 2.9e-14;
  Matches   24;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy     273 AVKAPGFGDRRKAMLEDIAILTGG 296
           |||||||||||||||||||||||||
Db     243 AVKAPGFGDRRKAMLEDIAILTGG 266


RESULT 13
AAR13337
ID   AAR13337 standard; Protein; 544 AA.
XX
AC   AAR13337;
XX
DT   17-DEC-2001  (updated)
DT   22-OCT-1991  (first entry)
XX
DE   HypB protein.
XX
KW   Antibodies; heat shock; hypersensitive; allergen; HSP60; GroES;
KW   GroEL.
XX
OS   Chlamydia trachomatis serovar A.
XX
PN   USN7531317-N.
XX
PD   09-JUL-1991.
XX
PF   31-MAY-1990;   90US-0143560.
XX
PR   31-MAY-1990;   90US-0531317.
XX
PA   (USSH ) NAT INST OF HEALTH.
XX
DR   WPI; 1991-245693/33.
DR   N-PSDB; AAQ13137.
XX
PT   DNA encoding HypA and HypB Chlamydia proteins - used to develop
PT   prods. for detection of and vaccines against Chlamydia infection.
XX
PS   Disclosure; Fig 7; 51pp; English.
XX
CC   The sequence was deduced from the second of two ORFs found in the
CC   hyp operon of clone pTA571CC prepd. from C.trachomatis genomic DNA.
CC   It is the HypB hypersensitivity protein, analogous to the E. coli
CC   GroEL protein.  It can be used to to raise antibodies and to
CC   prepare vaccines for the treatment of Chlamydial infections.  The
CC   protein also elicits a cell-mediated immune response so can be used
CC   as a skin test antigen.
CC   See also AAR13334-R13336.
CC   (Note: Revised entry submitted to correct the patent number format
CC   US Government-owned NTIS applications to prevent clashes with ongc
CC   granted patent numbers. For further information please visit the
CC   web site at www.derwent.com/dwpi/updates/ntis_us.html.)
XX
```

```
SQ   Sequence   544 AA;

  Query Match             4.4%;  Score 24;  DB 12;  Length 544;
  Best Local Similarity   100.0%;  Pred. No. 3.7e-14;
  Matches   24;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy     273 AVKAPGFGDRRKAMLEDIAILTGG 296
           |||||||||||||||||||||||||
Db     275 AVKAPGFGDRRKAMLEDIAILTGG 298


RESULT 14
AAR67383
ID   AAR67383 standard; Protein; 544 AA.
XX
AC   AAR67383;
XX
DT   22-JUN-1995  (first entry)
XX
DE   C. psittaci HypB gene product.
XX
KW   Urease; immunogen; vaccine; diagnostic; heat shock protein; HSP;
KW   GroEL-like protein; Helicobacter felis.
XX
OS   Chlamydia psittaci.
XX
PN   WO9426901-A.
XX
PD   24-NOV-1994.
XX
PF   19-MAY-1994;   94WO-EP01625.
XX
PR   19-MAY-1993;   93EP-0401309.
PR   19-NOV-1993;   93WO-EP03259.
XX
PA   (INRM ) INST NAT SANTE & RECH MEDICALE.
PA   (INSP ) INST PASTEUR.
XX
PI   Ferrero R, Labigne A, Suerbaum S, Thiberge J;
XX
DR   WPI; 1995-006797/01.
XX
PT   DNA from Helicobacter pylori and Helicobacter felis - used to
PT   develop prods. for detection, treatment and prevention of
PT   Helicobacter infection
XX
PS   Disclosure; Fig. 7A(i-vii); 168pp; English.
XX
CC   The sequence of the Helicobacter pylori heat shock protein A
CC   (given in AAR67374) was compared to that of other GroEL-like
CC   proteins from Legionella pneumophila (AAR67381), Escherichia coli
CC   (AAR67382), Chlamydia psittaci (AAR67383), Mycobacterium leprae
CC   (AAR67384) and human mitochondrial protein P1 (AAR67385), and regions
CC   of homology were identified.
XX
SQ   Sequence   544 AA;

  Query Match             4.4%;  Score 24;  DB 16;  Length 544;
  Best Local Similarity   100.0%;  Pred. No. 3.7e-14;
  Matches   24;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy     273 AVKAPGFGDRRKAMLEDIAILTGG 296
           |||||||||||||||||||||||||
Db     275 AVKAPGFGDRRKAMLEDIAILTGG 298


RESULT 15
AAW10975
ID   AAW10975 standard; Protein; 544 AA.
XX
AC   AAW10975;
XX
DT   21-MAY-1997  (first entry)
XX
DE   Chlamydia pneumoniae antigen used as DHFR-linked fusion protein.
XX
KW   DHFR; dihydrofolate reductase; Chlamydia pneumoniae; pneumonia;
KW   antibody production; diagnosis; fusion protein.
XX
OS   Chlamydia pneumoniae.
XX
FH   Key             Location/Qualifiers
FT   Misc-difference 25
FT                   /note= "given as Gle in three letter amino
FT                          acid code in the specification"
XX
PN   JP08294391-A.
XX
PD   12-NOV-1996.
XX
PF   28-APR-1995;   95JP-0106007.
XX
PR   28-APR-1995;   95JP-0106007.
XX
PA   (HITB ) HITACHI CHEM CO LTD.
XX
DR   WPI; 1997-036901/04.
XX
PT   Fusion protein comprising di:hydro:folate reductase and Chlamydia
PT   pneumoniae antigen - useful in prodn. of C. pneumoniae antibodies
PT   for diagnosis of infection
XX
PS   Claim 1; Page 11-12; 17pp; Japanese.
XX
CC   AAW10974 encodes a 544 residue Chlamydia pneumoniae antigen, at least
CC   5 contiguous amino acids of which are fused to a dihydrofolate
CC   reductase (DHFR) enzyme. Fusion proteins produced are useful for the
CC   production of anti-C. pneumoniae antibodies which are useful in the
CC   diagnosis and treatment of infectious diseases caused by C. pneumoniae.
XX
SQ   Sequence   544 AA;

  Query Match             4.4%;  Score 24;  DB 18;  Length 544;
  Best Local Similarity   100.0%;  Pred. No. 3.7e-14;
  Matches   24;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy     273 AVKAPGFGDRRKAMLEDIAILTGG 296
           |||||||||||||||||||||||||
Db     275 AVKAPGFGDRRKAMLEDIAILTGG 298


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